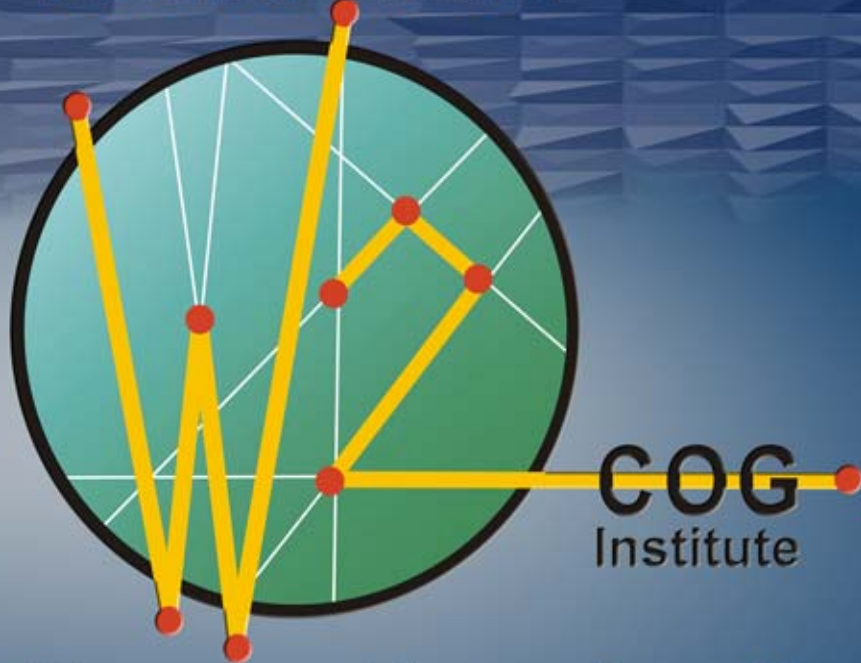


World Wide



Chris.Gunderson@w2cog.org

Consortium for the Grid

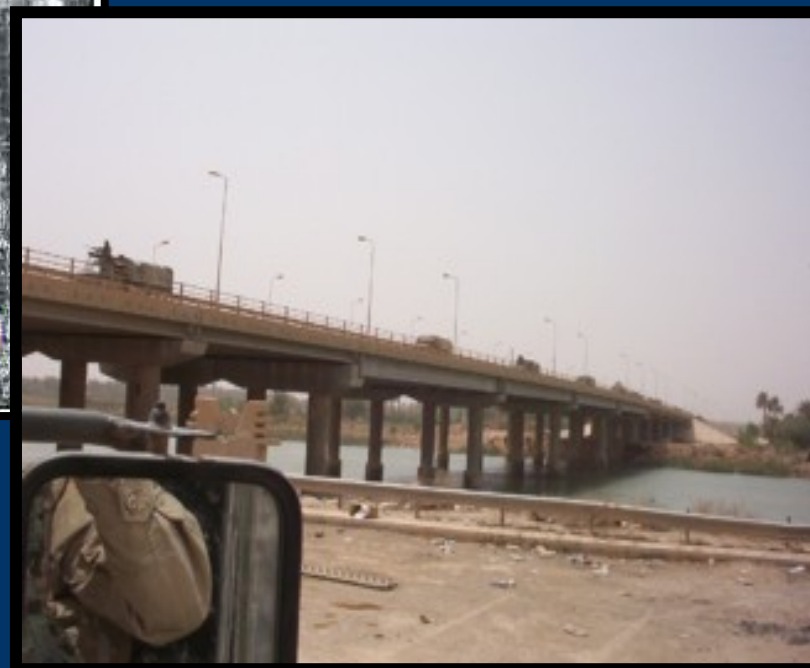
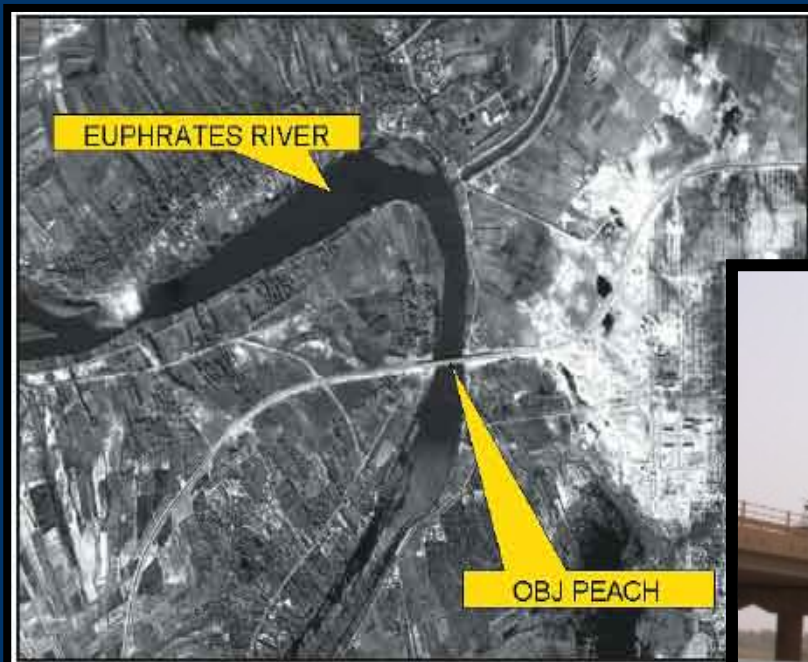
*PARTNERSHIP AND THE ART OF THE POSSIBLE... HOW
GOVERNMENT INVESTMENT IN COMMERCIAL IT
DEVELOPMENT CAN BE A WIN- WIN*

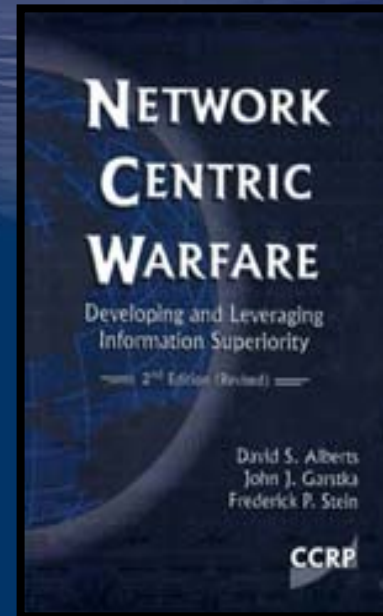
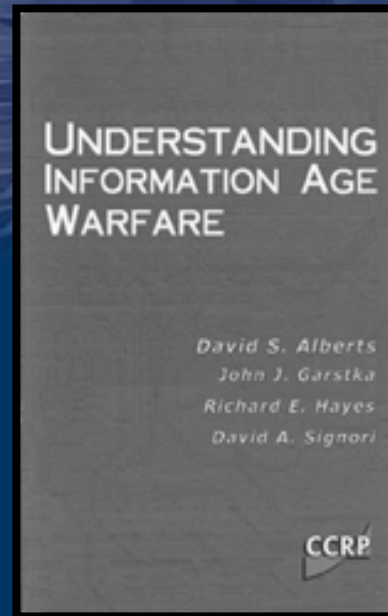
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"...next to the fall of Baghdad, that bridge was the most important piece of terrain in the theater, and no one could tell me what was defending it. Not how many troops, what units, what tanks, anything! Someone might have known above me, but the information wasn't getting to me on the ground...."

LTC 'Rock' Marcone, Commander 69th Armor Battalion, 3rd Infantry Division





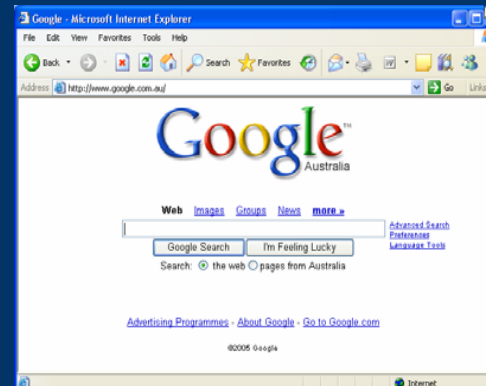
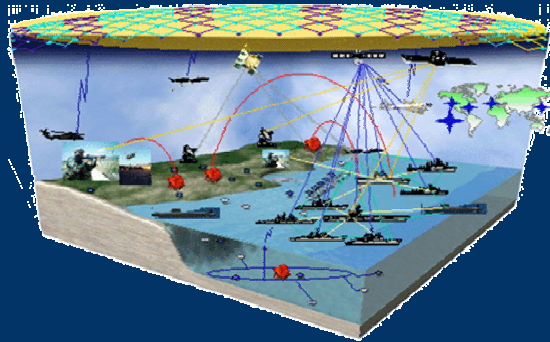
"...The Bridge at Objective Peach was considered to be the most critical piece of terrain in the entire campaign... Intel officers ...concluded that Objective Peach was undefended.... the 69th were welcomed at the bridge by over 8000 concealed Iraqi Soldiers, 70 tanks and APC's and resulted in the largest force-on-force battle of the entire war.... In what should have been the showcase for the concept of network-centric warfare— the information keystone failed."



"(Intel is making) chips (that) are going to fill the global airwaves with inexpensive, pervasive broadband wireless capability - and that our enemies in caves have already figured out how to use it against us. While our soldiers are struggling and getting killed with custom, expensive, slow, etc capability that is stuck in 10-15 year procurement and development cycles"

LTG Steve Boutelle (paraphrased) at 11/2/05 NCOIC Executive/Advisory meeting

MYTH: Military NCW must be fundamentally different from commercial E-business



REALITY: Google...or its yet unknown successor... will achieve effective, interoperable, secure, distributed information processing faster than the Global Defense Community..... "The world is flat!" Tom Friedman NY Times..

W2COG and the W2COG INSTITUTE

The W2COG is an initiative by the Defense Department to create a market place where the information processing capabilities necessary for the GIG can be identified, developed, and delivered faster than using more conventional acquisition methods.

The W2COG Institute, created by DoD, is a not-for-profit US-Tax Exempt 501(c)3 organization of distributed experts eager to turn their know how into netcentric capability—in effect, it is the market place for this innovative way of delivering capability to the GIG.

Value Proposition for W2COG and NCO Incubator

Practical alternative to, and resource for, the Program of Record to accelerate fielding effective information processing components via consumable-off-the-shelf “internet” engineering model:

- ***Network of experts***
 - ***“On demand” consultation with global industry/academic/gov’t NCO experts:***
- ***NCO Incubator***
 - Info-centric specs/MOES, i.e. “Net-ready Key Performance Parameters (NR-KPP)”
 - “Bundle” mature technologies
 - Mitigate risk
 - Leverage Industry IRAD and innovation
 - Design bite sized, low cost, projects
 - » ~90 day ref implementation prototyping cycle
 - » Address compelling use cases and operational customers who cares
 - Field demonstrated capability via “consumable” model
 - Capture and share reference implementation specifications re: HW, SW, doctrine, training, etc.
 - ***Place “productized” capability immediately on convenient consumable procurement schedule***

W2COG Status & Accomplishments:

- Board of Advisors: Dr Wells; ASD NII; Lt Gen Shea, JS J6; Lt Gen Raduege, formerly Dir of DISA; RDML Hight, Dir GIG OPS; Dr Kahn, President Corporation for National Research Initiatives; Mr Mihelcic, DISA CTO....has been invited and is expected to join....
- Partnering with NCOIC, AFEI, and Object Management Group (OMG).... others in the works
- Partnering with JFCOM J9 & J6, JTF GNO J9, I MEF G9, HQ SPAWAR, SPAWAR SYSCEN Charleston, Future Combat System ...others in the works
- Incorporated not-for-profit "W2COG Institute" June 05
 - 40 + international industry and gov't members 10/26/05
 - Member fees due Jan 06... some already being paid...
 - Business model: ~\$3-5M/yr = ~20% dues + ~10% brokerage fees + ~70% project funds
- Public/Private projects complete:
 - Australian Defense Force IPv6 transition strategy
 - Hastily Formed Network deployed for Tsunami and Katrina relief
- Public/Private projects underway:
 - Private Collaborative Network: Disaster Response
 - Valuable Info at the Right Time: Rich Semantic Track
 - Netcentric Business Process: Budget activity
 - Post-Katrina "Virtual Tutoring" network
 - Web-enabled NCO brokerage and central clearing house
 - Web-enabled GIG-lite configurable run-time environment

W2COG Mandate



*Seize opportunity and achieve advantage amidst chaotic proliferation of network technology and actors –
NETCENTRIC OPERATIONS (NCO)!*

W2COG: A US DoD funded project to help you break down stovepipes

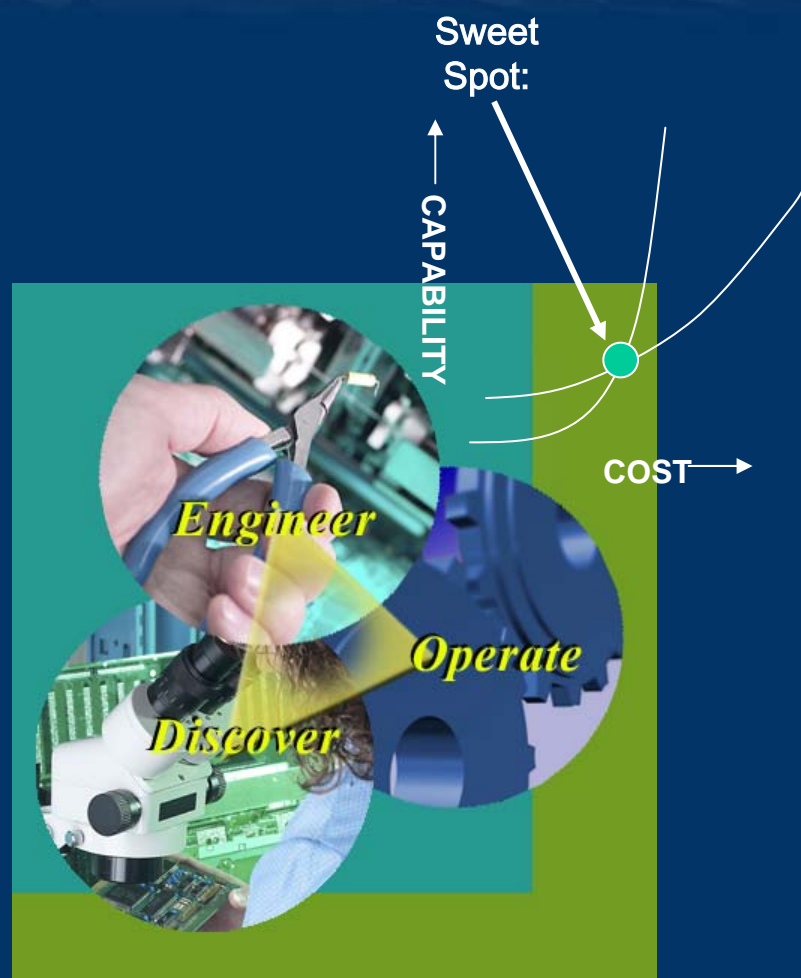
- An international, collaborative association of networking technology and operational experts focused exclusively on accelerating the development and availability of tools to support **Network Enablement***
- A **brokering service** that efficiently puts expert providers in touch with customers
- An **NCO Incubator** that arranges rapid prototyping ventures among industry, government, and academic partners and captures successful reference implementations for convenient broader consumption



*Network Enablement = NetCentric Operations

W2COG Value Proposition: What's in it for you!

- Lowers costs and accelerates fielding of solutions, while increasing safety and probability of mission success
- Provides companies a level playing field to evaluate other technologies, mitigate risks, and validate development efforts
- Provides networking opportunities with target markets and potential business partners
- Offers academic researchers a forum for exposure and validation of ideas



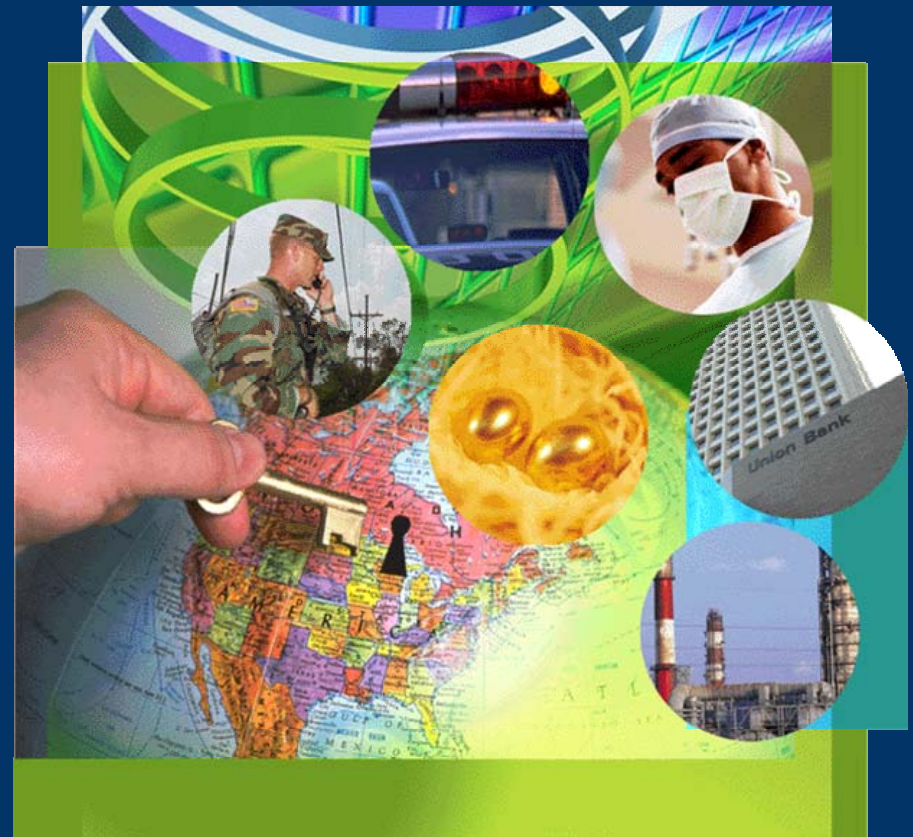
NCO Incubator: Government-Industry Partnership to Accelerate NetCentric Promise

- Includes both government and industry component, but operates like an e-commerce venture
 - Participating vendors, labs and customers will self-organize and contribute resources
 - Government seed funds and participants and industry contributions
- Focuses on IT tools that enhance command and control, i.e. tools that deliver *Valuable Information at the Right Time* (VIRT)
 - **Customers define network-enabling specifications and metrics**
- Uses the idea of “consumable” *Value Off the Shelf* (VOTS) procurement to deliver and sustain network-enabling capability
- Creates rapid prototypes of well-defined “bundled” components

Capitalizes on Moore's Law and the associated IT industry refresh cycle

NCO Incubator Process

- Find compelling operational issues, funding and customers
- Identify ripe technologies
- Build government/industry team
- Propose just-in-time business models for sales to government
- Compose capability from “shrink wrapped” components and
- Demonstrate enhanced information value: VIRT!
- Capture and share NCO reference implementations re: technologies, policies and practices (COIs)
- Place bundled products on government/commercial procurement schedules: VOTS!



NCO Inc Project Themes

Valued Information at the Right Time (VIRT), aka
Netcentric Command and Control re:

- Humanitarian Relief/Disaster Response
- “Private” UNCLAS Coalition Collaborative Network
- Rich Semantic Track
- Cross Domain Change Detection
- Sense and Respond Capability Distribution
- Netcentric Business Process



*W2COG Reference
Implementations... the recipes in
a netcentric “cook book”*



Purpose

- Provide a turn-key VOTS framework for implementation using COTS or GOTS Not only “shrink-wrapping” to create off-the-shelf technology products, but also documenting the details to meet application unique needs i.e. what other activities are required to re-create the improved “information portfolio”



Reference Implementation Deliverables

- Hardware specifications including processors, drivers, interfaces, and any unique or custom parts
- Software specifications including source and code for any developed and contributed software; standards by reference; and any documentation developed for the software—such as software design documents, interface documents, and test documents and artifacts.
- **Net-Ready Specifications including**
 - Information Value Proposition
 - Doctrinal adjustment
 - Training requirements



Issue: Need to Know vs. Need to Share... Terrorists have an asymmetric advantage over the Coalition regarding information portfolio management.

...Insurgents' network is "UNCLAS" and populated by various "open" sources of intelligence....their info-sharing is unencumbered by US security policies regarding security risk for information release under need to know. .. Good guys info sharing is encumbered by monolithic security policy associated with classified network. ... Consistent message from US and coalition participants in Operation IRAQI FREEDOM is that they are at a disadvantage because they are unable to share Critical Time Targeting (CTT), Putting Ordinance on Emerging Targets (POET), and/or Improvised Explosive Device information.

The BIG IDEA is to use COTS to change bad guys' *asymmetric* info-sharing advantage into a *symmetric* info-sharing advantage to the good guys....

.....Emphasize IED defeat. Use high assurance readily available multi-level security components together with off-the-shelf sensor, change detection, and wireless routing technology to enable a network in which mission critical, but unclassified can be rapidly collected and shared appropriately, according to the need to share requirements of each of the participants.

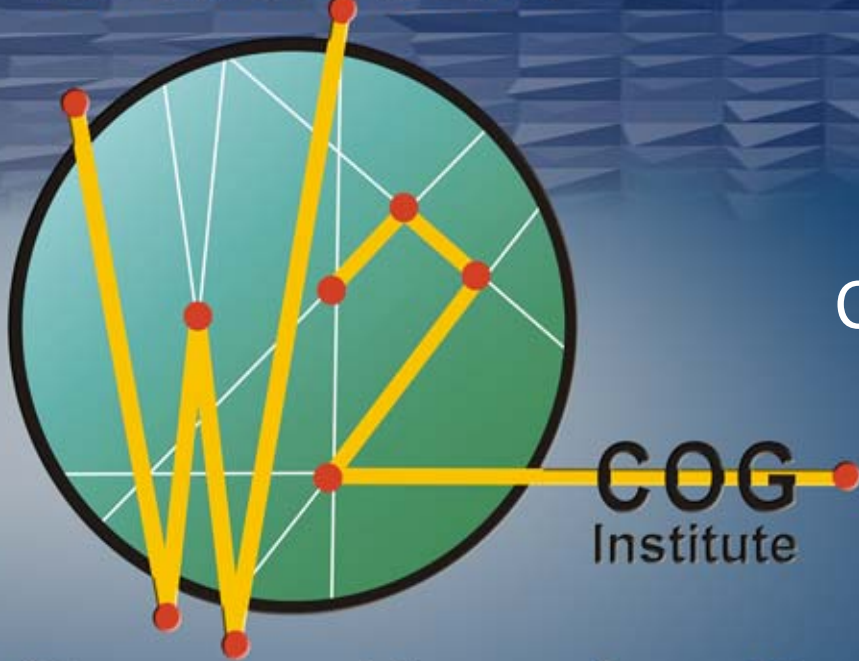


Summary

- Join Us
 - The social network of member experts is the heart of the W2COG
 - Bring your requirement.....your engineering expertise and ideas.....your programmatic issues to the forum....Partner with others to field fast, learn fast, and field again.....



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